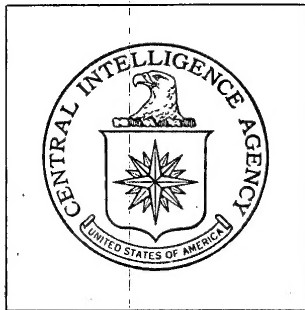


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DIRECTORATE OF
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**Industrial Facilities
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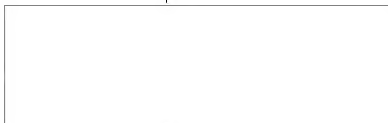
Basic Imagery Interpretation Report

Hang-chou Petroleum Refinery and Storage

Hang-chou, China



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CENTRAL INTELLIGENCE AGENCY
 Directorate of Intelligence
 Imagery Analysis Service

INSTALLATION OR ACTIVITY NAME		COUNTRY
Hang-chou Petroleum Refinery and Storage		CH
UTM COORDINATES	GEOGRAPHIC COORDINATES	
51RTD268536	30-16-41N 120-09-12E	
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MAP REFERENCE		
15th RTS. USATC, Series 200, Sheet M0492-11HL, 4th ed, May 69, Scale 1:200,000		
(SECRET)		
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LATEST IMAGERY USED		NEGATION DATE (If required)
		NA
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ABSTRACT

Hang-chou Petroleum Refinery and Storage is a small petroleum refinery. The primary products are gasoline, kerosene, and diesel and fuel oils. The main production component of the refinery is a crude oil distillation-thermal cracking combination unit.

The refinery was operating when it was first seen on good-quality photography in July 1964, and it has been seen operating on intermittent coverages through August 1971. The operating status could not be determined on the other coverages because of the small scale and poor quality of the photography. Minor additions have been made to the refinery since July 1964.

This report contains a line drawing, a photograph of the refinery and storage area, a listing of facilities with measurements of storage tanks, and a discussion of construction and operational status.

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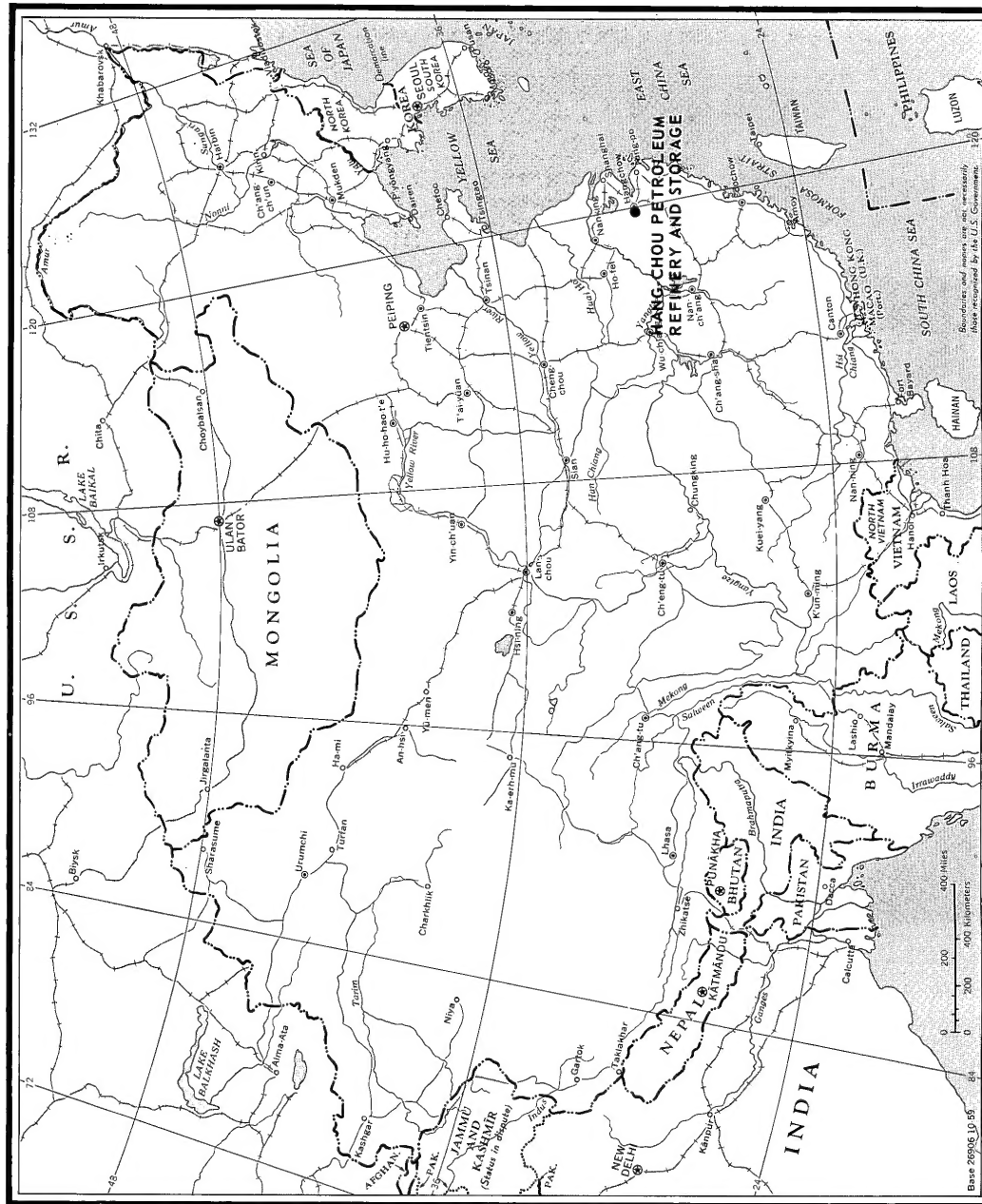


FIGURE 1. LOCATION MAP.

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INTRODUCTION

Hang-chou Petroleum Refinery and Storage is located in the northern section of Hang-chou (see Figure 1). It is a small refinery in size and charge capacity. Hang-chou Iron and Steel Plant is located 5 nautical miles north of the refinery. The refinery is provided with steam from a collocated steam plant and with electricity through the local power grid.

BASIC DESCRIPTION

Physical Features

The refinery occupies an area of about 30 acres which measures 2,000 by 650 feet. It is almost entirely enclosed by a wall. The refinery consists of two sections on either side of a canal, with a pipeline connecting the two sections (see Figures 2 and 3). It is road served.

Operational Functions

The primary products of the refinery are straight-run and cracked gasoline, kerosene, diesel and fuel oils, and gaseous hydrocarbons. The main processing unit is a crude oil distillation-thermal cracking combination unit. Some treating of the refinery products probably also occurs.

Construction and Operational Status

In July 1964, when the refinery was first seen on good-quality photography, the crude oil distillation-thermal cracking combination unit was in place and the refinery was operating. Between July 1964 and October 1965, several storage tanks were added and the pipeline was constructed across the canal. By June 1968, the two original furnaces had been enlarged and at least two processing columns had been added to the combination unit. By January 1971 two small furnaces had been added to the combination unit. No significant changes have been made since that time.

The refinery has been seen operating on intermittent coverages from July 1964 through August 1971 based on smoke and steam emissions; the operating status could not be determined on the other coverages because of the small scale and poor quality of the photography.

Facilities and Equipment

Table 1 lists the functional areas, facilities, and equipment within the refinery. Measurements are rounded to the nearest 5 feet.

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Table 1. Equipment and Facilities at the Hang-chou Petroleum Refinery and Storage
(Keyed to Figure 3)

<u>Area</u>	<u>Functional Description</u>	<u>Equipment and Facilities</u>
A	Support, Storage, Shipping, and Probable Treating	1 Loading rack 63 Miscellaneous buildings 86 Cylindrical storage tanks 1 40-foot-diameter 1 35-foot-diameter 5 30-foot-diameter 12 25-foot-diameter 4 20-foot-diameter 2 15-foot-diameter 54 10-foot-diameter 7 5-foot-diameter 1 Tank under construction 1 Semiburied tank
B	Crude Oil Distillation and Thermal Cracking	1 Combination unit with 8 columns 2 clusters of processing equipment 4 furnaces 7 buildings 13 cylindrical storage tanks, 5 feet in diameter
C	Steam Plant	Equipment not listed.
D	Storage, Support, and Probable Treating	32 Miscellaneous buildings 25 Cylindrical storage tanks 2 25-foot-diameter 4 20-foot-diameter 3 15-foot-diameter 7 10-foot-diameter 9 5-foot-diameter 2 Horizontal storage tanks, 20 feet long 2 Spherical storage tanks, 5 feet in diameter
E	Support	54 Miscellaneous buildings (two have attached horizontal storage tanks) 6 Cylindrical storage tanks, 5 feet in diameter

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REFERENCES

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Map

15th RTS. US Air Target Chart, Series 200, Sheet M0492-11HL, 4th edition,
May 1969. Scale 1:200,000 (SECRET)

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Requirement

COMIREX N06
Support Number 422814

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